Abstract

A test system determines the response of a QAM receiver in relative isolation from a communication channel of a CATV network. The system includes a test coupler to couple the output of a QAM transmitter to a QAM receiver and a controller for configuring the QAM transmitter and QAM receiver within a component to communicate with one another. The system of the present invention makes use of the QAM transmitter provided, for other purposes, in an ASIC implementing the QAM receiver. The operation of the test controller of the test system permits the QAM receiver to be tested without the need for external test equipment. The test controller provides the QAM transmitter with a data signal for modulating an identified carrier frequency for purposes of the internal test. The response of the receiver to the test signal generated by the transmitter is captured and evaluated to determine the characteristics of the receiver. If the unit under test requires service, a service message may be generated and sent by the transmitter to the head end. Thus, information about the receiver response may be gathered without using sweep tests that involve components located at other sites in the network and the receiver may be evaluated without requiring expensive test equipment.